

REMARKS

Claims 2-6, 8-15 and 19 currently appear in this application. The Office Action of January 5 and the Advisory Action of April 23, 2007, have been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

New Matter

In the Advisory Action of April 23, 2007, the Examiner asserted that the recitation, "semipermeable material that controls access of volatile acetylcholinesterase inhibitors" contains new matter. The Examiner alleges that the specification fails to recite "semipermeable material" and "volatile acetylcholinesterase inhibitors."

The term "volatile" has been deleted from claim 19. However, it should be appreciated that only volatile or semi-volatile compounds will be present in ambient air and able to pass through a semipermeable package. That is, only volatile or semi-volatile compounds pose a problem to humans, the problem arising because these compounds are present in the air rather than merely on the agricultural products treated therewith.

Semipermeable packaging is clearly disclosed in the specification at page 16, paragraph 0053.

acetylcholinesterase sol-gel product was added to semipermeable polyethylene tubing and both ends were heat sealed.

Rejections under 35 U.S.C. 112

Claims 1 and 11-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that there is not adequate support found in the specification for "single sol-gel."

This rejection is respectfully traversed. The claims have been amended to delete any reference to a single sol-gel.

Claims 1 and 7-15 are rejected under 35 U.S.C. 112, second paragraph, being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This rejection is respectfully traversed. Claims 1 and 7 have been cancelled and replaced by new claim 19. Claim 19 makes it clear that the immobilized enzyme is packaged in a semipermeable material. Support for this amendment can be found in the specification as filed at page 16, paragraph 0053, noting that the immobilized acetylcholinesterase was

placed into semipermeable polyethylene tubing, and at page 21, paragraph 0065, wherein it is noted that the immobilized enzymes can be incorporated in any type of holder or package that permits exposure of the immobilized enzyme to the atmosphere at the time testing of the atmosphere is to commence.

Semipermeable polyethylene permits ingress of the molecules of the organophosphates to be detected, and thus there is basis in the specification for this amendment.

Art Rejections

Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Kok et al., *J. Biomater. Sci. Polymer Edn Vol. 12, No. 11*, 1161-1176 (2001).

As the present amendment cancels claims 16-18, this rejection is now moot.

Claims 1, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kok et al. in view of Stanford et al., US 7,008,524 and Avnir et al., US 56,650,311.

This rejection is respectfully traversed. Claims 1 and 17 have been cancelled, so the rejection with respect to these claims is now moot. Claim 14 depends on claim 19, which requires that the package be a semipermeable material. That is, claim 14 now recites that the sol-gel is retained in a tube made of semipermeable polyethylene. There is nothing in

any of the cited patents that even suggests incorporating the sol-gel in a semipermeable polyethylene package.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Charych et al., US 5,485,987.

This rejection is respectfully traversed. As noted above, none of the references teaches or suggests incorporating the immobilized enzyme in a semipermeable package.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 11 above, and further in view of Khue et al., US 5,624,831.

This rejection is respectfully traversed. As noted above, none of the references teaches or suggests incorporating the immobilized enzyme in a semipermeable package.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Magdassi et al., US 6,303,149.

This rejection is respectfully traversed. As noted above, none of the references teaches or suggests incorporating the immobilized enzyme in a semipermeable package.

Claims 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kok et al. in view of Strobel et al., US 5,766,473.

This rejection is respectfully traversed. As noted above, none of the references teaches or suggests incorporating the immobilized enzyme in a semipermeable package.

Contrary to the Examiner's assertion, the polyethylene bag described by Strobel is not inherently semipermeable. Strobel discloses at column 33, lines 43-45, that the membranes were stored in a polyethylene bag containing CaSO_4 desiccant for two months prior to use in order to simulate production storage times. There is absolutely nothing in Strobel that would lead one skilled in the art to believe that the polyethylene was semipermeable. The immobilized enzyme in Strobel is stored in polyethylene in order to simulate production storage times.

Strobel is directed to an oxygen scavenger for protecting oxygen sensitive products. It would be foolish for Strobel to store the oxygen sensitive products produced in Example 26 in semipermeable or permeable bags, as the whole idea of Strobel is to prevent oxidative damage.

In contrast thereto, the detectors claimed herein are designed to be permeable to acetylcholinesterase inhibitors. That is, the detectors are designed to detect the presence of acetylcholinesterase inhibitors in the atmosphere. In order for the detectors to function properly, the acetylcholinesterase inhibitors must contact the acetylcholinesterase stored in the semipermeable polyethylene bags. Rather than protecting the detection materials, the polyethylene has made it possible for any analyte to penetrate the bags to contact the detection means. There is nothing in Strobel that suggests permitting ambient gases to permeate the polyethylene bags.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 7, 9 and 10 as above, and further in view of Stanford et al. and Avnir et al.

This rejection is respectfully traversed. As noted above, none of the references teaches or suggests incorporating the immobilized enzyme in a semipermeable package.

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and Advisory Action of April 23, 2007

In view of the above, it is respectfully submitted
that the claims are now in condition for allowance, and
favorable action thereon is earnestly solicited.

Respectfully submitted,

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